APHIS Analysis of the Status of High Pathogenicity Avian Influenza H5N1 (HPAI H5N1) Virus in France

Animal and Plant Health Inspection Service

Veterinary Services

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Abbreviations

ADNS	Animal Disease Notification System
AFSSA	Agence Francaise de Securite Sanitaire des Aliments
AI	avian influenza
APHIS	Animal and Plant Health Inspection Service
AU	Administrative Units
CFR	Code of Federal Regulations
CRL	Community Reference Laboratory
CSF	Classical Swine Fever
DGAL	Direction Generale de L'Alimentation
EC	European Commission
END	Exotic Newcastle Disease
ESZ	Enlarged Surveillance Zone
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
H5N1	hemagluttin 5 neuraminidase 1
HPAI	high pathogenicity avian influenza
LPAI	low pathogenicity avian influenza
MAP	Ministere de L'Agriculture et de La Peche
MS	Member State (European Union)
OIE	World Organization for Animal Health
PCR	polymerase chain reaction
TRACES	Trade Control and Expert System
SCFCAH	Standing Committee on the Food Chain and Animal Health
USDA	United States Department of Agriculture

EXECUTIVE SUMMARY

On February 25, 2006, the Ministry of Agriculture, Food, Fisheries and Rural Affairs (MAP) General Directorate for Food (DGAL) reported to the World Organization for Animal Health (OIE) a suspected outbreak of highly pathogenic avian influenza virus subtype H5 in a flock of breeding turkeys in the Department of Ain, France. The outbreak was located within the 3-km-radius protection zone established on February 18, 2006, following the detection of highly pathogenic avian influenza subtype H5N1 (HPAI H5N1) in a wild duck [1]. Since the June 22, 2006, final report to OIE, France has not reported any additional incidences of HPAI H5N1 in domestic poultry.

In this document, APHIS presents the results of its evaluation of the Highly Pathogenic Avian Influenza subtype H5N1 (HPAI H5N1) status of France based on the evaluation of documentation submitted by the Ministere de L'Agriculture et de La Peche (MAP), Direction Generale de L'Alimentation (DGAL), European Commission (EC) legislation, and reports to OIE. APHIS has maintained contact with French veterinary authorities who kept APHIS advised of animal disease conditions in their country and concludes that a document review is sufficient to meet the needs of this evaluation. In addition, because of the long history of trade between the United States and France, APHIS did not require a site visit to complete this evaluation.

The documentation reviewed was consistent with the OIE Terrestrial Animal Health Code recommendation for reinstatement of trade with a region that has experienced an HPAI H5N1 outbreak [2]. In brief, APHIS based its evaluation on the following critical factors: France has been free of HPAI H5N1 in their domestic poultry for at least 3 months as the result of effective control measures undertaken by a competent veterinary infrastructure; that HPAI H5N1 was a notifiable disease in France; an ongoing awareness disease program was in place; all notified or suspect occurrences were investigated; an effective surveillance program for HPAI H5N1 existed that supported the detection and investigation of outbreaks; diagnostic and laboratory capabilities were adequate and effective; eradication and control measures and movement restrictions were appropriate to prevent further spread of disease; and procedures used for repopulation of affected premises included monitoring to demonstrate that HPAI H5N1 had been eradicated.

AHPIS considers that the presence of HPAI H5N1in wild birds presents the highest risk for the reintroduction of HPAI H5N1 into France. Eradication of disease should mitigate the immediate risk from the outbreak that occurred but the reintroduction of disease into domestic poultry remains a concern whenever HPAI H5N1 is present in wild or migratory bird populations. Ongoing surveillance programs for wild birds and domestic poultry in France and the surrounding regions have indicated that although HPAI H5N1 has been found in wild bird populations in France and surrounding regions, it has not reoccurred in the domestic poultry of France since the time of the outbreak on the turkey farm in Ain. France recognized wild birds as the major pathway of introduction of HPAI H5N1 and had in place an adequate and appropriate surveillance system for HPAI H5N1 in wild birds. Extensive surveillance in wild birds and domestic poultry for HPAI H5N1 in France has been done since eradication of the outbreak and continues. Surveillance has found no additional identifications of HPAI H5N1 in domestic poultry and indicates

that it has not been reintroduced to domestic poultry from infected wild birds. APHIS considers that if there is a reintroduction of HPAI H5N1 into France it would be rapidly detected and appropriate control and eradication measures would be applied.

As a result of this evaluation, APHIS concludes that France was able to effectively control and eradicate HPAI H5N1 in its domestic poultry population and that the French authorities have adequate control measures in place to rapidly identify, control and eradicate the disease should it be reintroduced into France in either wild birds or domestic poultry. The effectiveness of the eradication program was attributed to prompt actions taken by MAP with cooperation from backyard and commercial flock owners. Based on the results of the assessment, APHIS could identify no additional risk factors that would indicate that domestic poultry in France continue to be affected with HPAI H5N1.

APHIS concludes that the likelihood of introducing HPAI H5N1 into the United States through the import of live birds, poultry carcasses, parts or products of poultry carcasses, and eggs (other than hatching eggs) of poultry, game birds or other birds from France to be low.

INTRODUCTION

On February 25, 2006, the General Directorate for Food (DGAL) of the Ministry of Agriculture, Food, Fisheries and Rural Affairs (MAP), reported to the World Organization for Animal Health (OIE) a suspected outbreak of highly pathogenic avian influenza virus subtype H5 in domestic poultry. The outbreak was on a turkey farm located in the district of Versailleux in the department of Ain. The location of the outbreak was within in the Dombes region, a wetland area that hosts large numbers of wild and migratory birds. The affected farm was within the 3-km-radius protection zone set up around the municipality of Joyeux, in the department of Ain, after the discovery on February 18, 2006, of the first case of highly pathogenic avian influenza virus subtype H5N1 (HPAI H5N1) identified in France in a wild duck. On February 23, 2006, an outbreak of HPAI H5N1 was identified on a turkey farm in Versailleux, department of Ain, located within the surveillance zone and within 1 km of the site of first HPAI H5N1 infected wild bird.[1]

France, in conjunction with the European Commission (EC), endorsed defining protection, surveillance and buffer zones consistent with Commission Decisions 2006/135/EC and 2006/115EC in the Dombes. Commission Decision 2006/115/EC put in place the Enlarged Surveillance Zone (ESZ) based on geographical, administrative and epidemiological factors that encompassed the entire wetlands area of the Dombes. The restricted communes are listed in Commission Decision 2006/175/EC. The Dombes region was considered to represent an area of increased risk for the spread of HPAI H5N1 from wild birds to domestic poultry because of the presence much surface water in the form of marshes and ponds that support large numbers of migratory wild birds. In 2006, the Dombes region is where 61 of the 62 identifications of HPAI in wild birds were detected**.**

In response to the presence of HPAI H5N1in domestic poultry in France and in an effort to help prevent the introduction of HPAI H5N1 into the United States, APHIS added the affected region to the list of regions APHIS considers affected with HPAI H5N1 and banning trade in French birds, poultry, and poultry products from this region [Appendix II]. In this document, APHIS presents the results of its re-evaluation of the HPAI H5N1 status of France. APHIS is basing this review on the evaluation of documentation submitted by the *Ministere de L'Agriculture et de La Peche* (MAP), *Direction Generale de L'Alimentation* (Directorate-General for Food, DGAL), EC legislation, and reports to OIE [3].

Previously APHIS has conducted several reviews of the animal health control system of France and has concluded that the EU and France have in place an effective system to identify, control and eradicate animal disease and that these control measures could be effectively be applied at the sub-national level [4, 5, 6, 7, 8]. Important animal health requirements include compulsory notification of specific animal diseases to both the EC and OIE. HPAI H5N1 is a notifiable disease in the EU.

The 2003 APHIS risk assessment evaluated France's Classical Swine Fever (CSF) status and identified the smallest administrative unit in France to be the commune [4]. In the September 2004 CSF risk assessment, APHIS evaluated the veterinary infrastructure of 15 Member States (MS) of the European Union (EU), including France, with regard to the ability to apply the harmonized and binding animal health regulations imposed by the EC on all the Member States [7]. In 2005, APHIS identified and presented for public comment what it considered to be the smallest sub-national jurisdictions or Administrative Units (AUs) for 15 EU-MS that could be demonstrated to have "effective oversight of normal animal movements into, out of, and within that jurisdiction, and that, in association with national authorities, if necessary, has effective control over animal movements and animal diseases locally" [8].

As a result of these evaluations, APHIS has recognized that local authorities in these Member States have effective oversight and control of animal diseases locally within their respective AUs and in the event of future animal disease outbreaks in the EU, APHIS would regionalize Member States to the level of one or more of the identified AUs. Although the document specifically addressed CSF, the concept of regionalization to the AU level was considered to be more broadly applicable and not be disease-specific.

These evaluations of the infrastructure, ability to implement appropriate control measures, laboratory capabilities, movement controls, and emergency measures apply equally to HPAI H5N1. The information provided by France regarding HPAI H5N1, in addition to the information from previous evaluations of poultry, swine, and ruminant diseases provide a background that is consistent with the 11 factor approach in 9 CFR 92.2. APHIS has maintained contact with French veterinary authorities who kept APHIS advised of animal disease conditions in their country and concludes that a document review is sufficient to meet the needs of this risk analysis. In addition, because of the long history of trade between the United States and France, APHIS did not require a site visit to complete this evaluation.

France provided information to support their request for being removed from the APHIS list of H5N1 affected countries [3]. The documentation provided was consistent with that outlined in Article 2.7.12.2 of the World Organization for Animal Health (OIE) Terrestrial Animal Health Code (2007); information recommended for reinstatement of trade HPAI H5N1 free status from a region that has experienced an HPAI H5N1 outbreak [7]. APHIS conducted a risk analysis that is consistent with these recommendations, specifically:

- France has been HPAI H5N1 free for 3 months because of control measures undertaken by an effective veterinary infrastructure**.**
- HPAI (as defined in 9 CFR) was a notifiable disease in France. An ongoing awareness program was in place for veterinary officials and the public, and all notified or suspect occurrences of HPAI H5N1 were subjected to field and laboratory investigations.
- A surveillance program for HPAI H5N1 already existed that addressed France's needs. This program supported the detection and investigation of outbreaks,

including clinical inspection, active and passive surveillance (both serological and agent detection), and serological and virological testing in high-risk areas and of high-risk flocks. These actions were sufficient to detect disease effectively and quickly, even in the absence of clinical signs.

- Under the surveillance program, all notified and/or suspected avian influenza cases were investigated, and officials took appropriate actions including collecting samples, transporting these samples in a manner that ensured their integrity for testing purposes, and documenting subsequent laboratory results.
- The system for recording, managing, and analyzing diagnostic and surveillance data was sufficient to demonstrate the effectiveness of France's disease control measures.
- Laboratory confirmation capabilities were effective, and testing procedures were documented and standardized.
- The eradication program included the definition of appropriate quarantine and surveillance zones, monitoring of those zones, and implementation of movement restrictions. Measures taken by officials were able to contain and control the spread of disease from these zones due to effective program measures. Procedures for lifting quarantines were followed and were sufficient to prevent further spread of disease.
- Documented standard operating procedures described procedures for depopulation, cleaning, disinfecting, and other applicable measures, such as carcass disposal. All relevant personnel were familiar with these standard procedures and followed them during the outbreak. These measures were effective in controlling the disease.
- Premises repopulation, if applicable, was carried out according to documented procedures, including evidence that the disease did not recur and monitoring after repopulation to demonstrate that the disease was eradicated.

As a result of this evaluation, APHIS concludes that France was able to effectively control and to eradicate HPAI H5N1in its domestic poultry population. The effectiveness of the eradication program was attributed to prompt actions taken by MAP and the cooperation of backyard and commercial flock owners. Since the 2006 outbreak, France has conducted extensive surveillance for HPAI H5N1 and has not identified any new HPAI H5N1 outbreaks in domestic poultry.

OBJECTIVE

The objective of this review is to evaluate the Highly Pathogenic Avian Influenza subtype H5N1 status of France following the outbreak in domestic poultry in 2006 to serve as the basis to characterize the risk associated with the import of live birds, poultry carcasses, parts or products of poultry carcasses, and eggs (other than hatching eggs) of poultry, game birds, or other birds from France.

BACKGROUND

France, as a Member State (MS) of the European Union (EU), is obligated to comply with the provisions of Council Directive 2005/94/EC which describes the measures for the control of avian influenza and Commission Decision 2004/402/EC requiring all EU-MS have AI contingency plans to ensure that the most appropriate measures are immediately implemented. These measures are harmonized and binding throughout the EU serving as an important means to prevent the spread of HPAI H5N1 within the EU as well as to prevent the spread of HAPI H5N1 to other countries through its export market. The Commission has the authority to conduct periodic evaluations to verify Member State compliance.

Prior to the HPAI H5N1outbreak United States had a long history of trade of poultry and poultry products with France. France has previously been evaluated for CSF and other animal diseases as a country and as an EU-MS. The EU system for animal disease control for classical swine fever has been extensively evaluated by APHIS and provides a basis for understanding the EU system for control of HPAI [4, 5, 6, 7, 8]. APHIS has maintained contact with French veterinary authorities who kept APHIS advised of animal disease conditions in their country. Therefore, APHIS concludes that a document review is sufficient to meet the needs of this risk analysis.

APHIS has concluded that MAP was able to effectively control and to eradicate disease in its domestic poultry population and that the EU system for animal disease control provides a basis for understanding the EU system for control of HPAI H5N1. Based on the results of the assessment, APHIS could identify no additional risk factors currently applicable to France that would indicate that France is currently affected by HPAI H5N1.

HISTORY OF HPAI H5N1 IN FRANCE AND THE EU

After the recognition of the spread of HPAI H5N1 from Asia into Western Europe, the EU enhanced surveillance was conducted to monitor for the presence of HPAI H5N1 in both wild birds and domestic poultry. The first EU country to report HPAI H5N1 to the OIE was Romania where HPAI H5N1 was reported in both wild birds and domestic poultry in October 2005. In February 2006, initial reports of HPAI H5N1 in wild birds were made in Austria, Bulgaria, France, Germany, Greece, Italy, Hungary, Slovakia, Slovenia, and Switzerland.

In February 2006, France reported the presence of HPAI H5N1 in domestic poultry in a single turkey flock. In March 2006, initial reports of HPAI H5N1 were made for domestic poultry in Sweden and wild birds in Poland, Denmark, Sweden and the Czech Republic. In April 2006, the first report of HPAI H5N1 in domestic poultry was made in

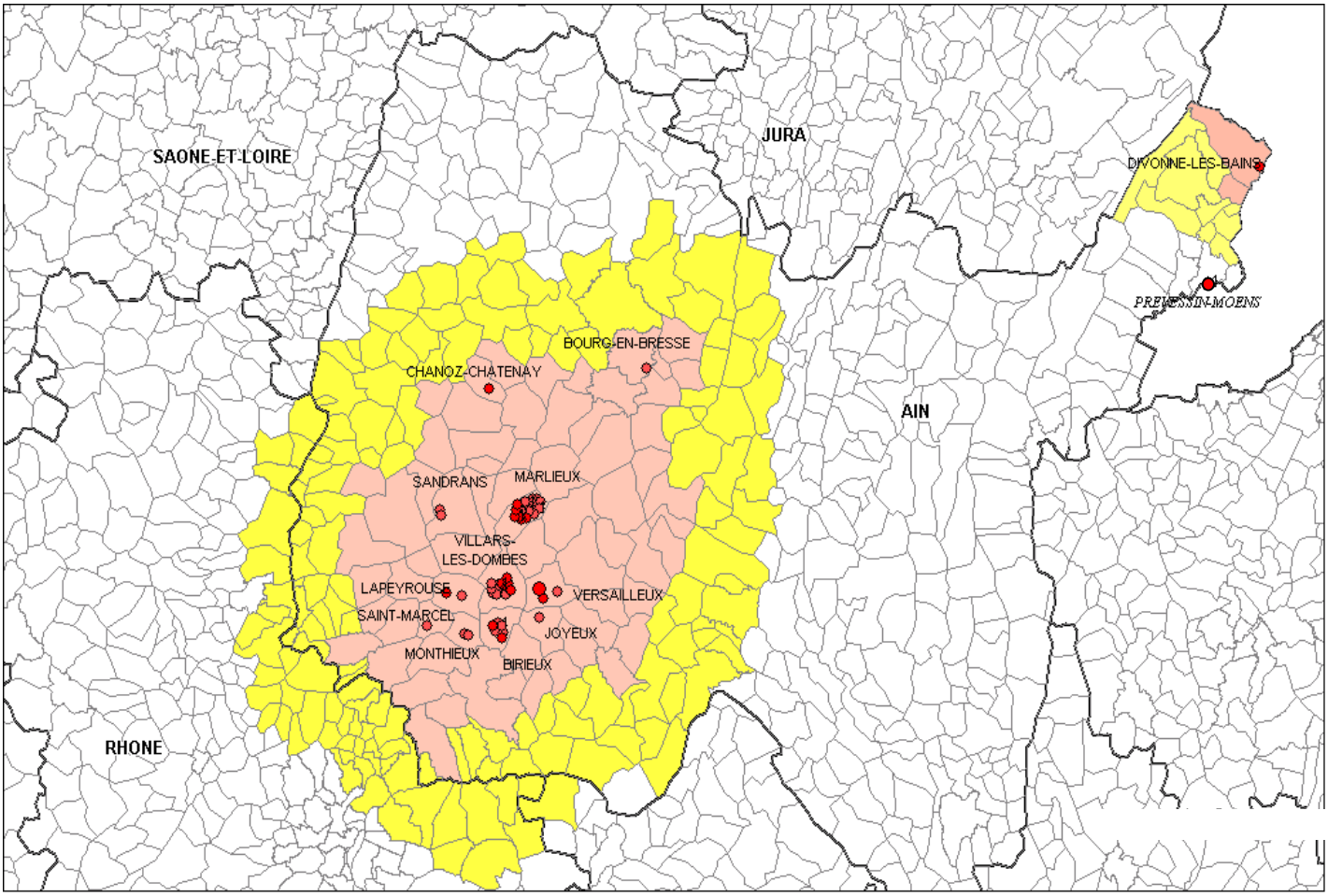
Germany and for wild birds in the United Kingdom. Outbreaks in domestic poultry were first reported in Denmark in May and Hungary in June 2006. In 2007, outbreaks of HPAI H5N1 in domestic poultry were reported in the Czech Republic, Hungary, Germany and the United Kingdom and in wild birds in Germany and France.

On February 13, 2006, based on positive laboratory findings (PCR) the presence of HPAI H5N1 was identified in 3 dead pochard ducks (*Aythya ferina*), in the department of Ain near Joyeux. In accordance with Commissions Decision 2006/115/EC (Appendix II), protection and surveillance zones were around the area were established on February 17. Increased surveillance of wild birds throughout France was undertaken, with special emphasis on marshy regions with migratory waterfowl populations.

On February 23, 2006, an outbreak of HPAI H5N1 was identified on a turkey farm in the department of Ain near Versailleux. The farm was located within the surveillance zone within 1 km of the site where the first HPAI H5N1 infected wild bird was identified. The farmer reported to the veterinary authorities the sudden appearance of clinical signs and abnormally high mortality among his flock of over 11,000 turkeys. The National Reference Laboratory in Ploufragan reported that RT-PCR was positive for H5. On February 25 the presence of H5N1 was confirmed by RNA sequencing of tracheal swab samples.

In 2006, surveillance throughout France found the presence of HPAI H5N1 infected birds mainly in the Dombes region of marshy wetlands which includes the department of Ain. In the department of Ain, 61 of the 62 HPAI H5N1 infected wild birds were found in the municipalities of Bourg en Bresse, Birieux, Chanoz-Chatenay, Joyeux, Lapeyrouse, Marlieux, Monthieux, Saint Marcel, Sandras, Versailleux, Villars-les-Dombes, Divonne les Bains and Prevessin-Moëns, although one was found in Bouches du Rhône department, municipality of Saint Mitre les Remparts. (see Figure 1)

Figure 1. Map of the department of Ain, showing the location of HPAI H5N1 positive wild bird samples in red, protection zones in pink and surveillance zones in yellow. Also note the location of Versailleux, site of the outbreak in domestic poultry



HAZARD IDENTIFICATION

APHIS has identified several animal diseases listed by OIE that pose primary hazards associated with initiating trade in animals and animal products from foreign regions. The listed foreign animal diseases of primary concern are addressed specifically in APHIS regulations. One of these diseases, High Pathogenicity Avian Influenza is recognized by APHIS as a hazard of primary concern. In this regard, before resuming trade in poultry and poultry products with a region or country considered by APHIS to have been affected with HPAI H5N1, APHIS is obligated to conduct an import risk analysis to support this action.

Avian influenza (AI) is caused by an orthomyxovirus virus that infects wild birds (such as ducks, gulls, and shorebirds) and domestic poultry (such as chickens, turkeys, ducks, and geese). AI viruses are classified by a combination of two groups of proteins: the hemagglutinin or H proteins, of which there are 16 (H1-H16), and neuraminidase or N proteins, of which there are 9 (N1-N9). AI strains also are divided into two groups based upon the ability of the virus to produce disease (pathogenicity): low pathogenic (LP) and highly pathogenic (HP).

HPAI H5N1, often referred to as the "Asian" H5N1, is the type causing worldwide concern. "Asian" HPAI H5N1 spreads rapidly and is often fatal to chickens and turkeys. Millions of birds have died in countries where the "Asian" strain of HPAI H5N1 has been detected. This virus has also infected people, most of whom have had direct contact with infected birds. “Asian” HPAI H5N1 has not been detected in the United States.

Low pathogenicity (LPAI) H5N1, often referred to as the "North American" H5N1, is of less concern. LPAI H5N1 has been detected in wild birds in the US as recently as 2007. Other strains of HPAI, specifically H5N2, have been detected and eradicated three times in the United States: in 1924, 1983 and 2004. In 2004 the H5N2 isolate was limited to a single flock and was rapidly eradicated. The 2004 H5N2 isolate did not result in clinical disease and inoculation studies showed it to be a low pathogenic strain; however, genetic sequencing was consistent with one of the OIE definitions for HPAI. No significant human illness resulted from any of the North American outbreaks.

ANALYSIS OF THE STATUS OF HPAI H5N1 IN FRANCE

APHIS conducted this evaluation based on the information outlined in the OIE Terrestrial Code Article 2.7.12, specifying the information recommended for reinstatement of trade HPAI free status from a region that has experienced an HPAI outbreak [9]. For the purpose of this report, risk refers to the likelihood that HPAI H5N1 exists in France and, if so, how likely it would be for the disease to be introduced into the United States through imports of live birds, poultry carcasses, parts or products of poultry carcasses, and eggs (other than hatching eggs) of poultry, game birds, or other birds from France. The likelihood will depend on the effectiveness of the eradication and control measures undertaken by France in response to the 2006 outbreaks of HPAI H5N1 and the ability to identify the presence of HPAI H5N1 if it were to be re-introduced.

Evidence that France has been HPAI-free for 3 months because of control measures undertaken by an effective veterinary infrastructure.

France has the legal authority to respond to HPAI through a comprehensive set of regulations, directives and decisions that are harmonized and regularly updated for all EU-MS [**Appendix** II]. In addition to the fixed body of legislation laid down for avian influenza, the EC has adopted additional or emergency measures under the AI Directive, with other pieces of primary animal health legislation as their legal basis. The Commission, with backing of the Member States, puts forward legislative measures through the Standing Committee on the Food Chain and Animal Health (SCFCAH). Measures implemented include import bans, prevention and control measures, domestic and wild bird surveillance programs and defining risk areas around protection and surveillance zones. APHIS also found the contingency plans, as required by EC regulations, adequately provided emergency funds, laboratory staff, equipment and infrastructure for animal disease outbreak control and eradication.

Comprehensive avian influenza specific measures are provided in Council Directive 2005/94/EC, which replaced Council Directive 92/40/EEC, and are frequently updated by Commission Decisions [**Appendix** II]. Council Directive 2005/94/EC includes comprehensive provisions for the early detection of infection in poultry to ensure rapid response and adoption of appropriate and proportionate control and eradication measures. This includes a system of active surveillance to be carried out by EU-MSs, control measures to be applied in the event of an outbreak of avian influenza in poultry or other captive birds. Compulsory notification of suspected cases of HPAI, depopulation of poultry on holdings where HPAI is confirmed, cleaning and disinfection of affected premises, repopulation, establishment of protection (3 kilometer radius) and surveillance (10 kilometer radius) zones around affected holdings to enforce movement controls, epidemiological investigations. The presence of a national laboratory in each Member State and a Community reference laboratory for HPAI diagnosis is also detailed in the Directive.

Immediate notification of the competent authority has been compulsory since enactment of Council Directive 82/894/EEC for suspected or confirmed cases of avian influenza. Notification of outbreaks of animal diseases to the EC is required by Council Directive 92/40/EC. Commission Decision 2004/402/EC requires that all EU-MS have approved AI contingency plans. Commission Decision 2006/563/EC requires that each EU-MS establish the legal powers necessary for the implementation of the contingency plans. Commissions Decision 2004/450/EC establishes standard requirements for Community financing for programs for the eradication, monitoring and control of animal disease.

In 2005, following the recognition of risks associated with the presence of HPAI H5N1 in wild birds, a number of specific measures related to surveillance and control measures were updated by the EC to help prevent virus introduction into commercial and non-commercial poultry flocks from infected wild birds. A wild bird surveillance program was established that requires the notification and epidemiological investigation of all

confirmed HPAI H5N1 identifications in wild birds with the establishment of protection, surveillance and restriction zones.

Commission Decision 2005/734/EC establishes biosecurity measures for HPAI H5N1 to reduce the risk of transmission from birds living in the wild to poultry and other captive birds and provides an early detection system in areas determined to be at particular risk. This Decision has been amended with additional risk mitigating measures by Commission Decisions 2005/745/EC; 2005/855/EC; 2006/405/EC and 2006/574/EC, among others (see Appendix II). Commission Decision 2005/745/EC immediately prohibited keeping of poultry in the open air, but allowed the competent authority to authorize the keeping of poultry in the open air if food and water were provided indoors. Commission Decision 2005/745/EC also required preventing access of poultry to surface water reservoirs accessible by wild birds and prohibited gatherings of birds at markets, shows and exhibitions.

EC Council Directives and Commission Decisions are incorporated into the French Rural Code, Article L.223-3 [**Appendix** II]. The Rural Code requires establishing emergency plans for listed animal diseases, which include Newcastle disease and avian influenza. The Rural Code includes the organization of an alert network at the national and departmental level including animal breeders and owners, health veterinarians; departmental directors of veterinary services and approved laboratories. The emergency plans are prepared in consultation at the national level and at departmental level. The alert network also provided awareness campaigns for the general public to encourage the reporting of dead wild birds for submission for diagnostic examination. The Rural Code also supports the measures taken at the local level in the case of suspicion and confirmation of the presence of the disease.

APHIS has previously evaluated the French veterinary infrastructure and found DGAL and MAP to be effective and able to implement adequate and timely animal disease control and eradication measures. APHIS published a CSF assessment in 2003 based on observations made during a site visit to France in February 2003 and concluded that the successful restocking of the affected premises occurred with no further outbreaks was the result of effective measures of the veterinary authorities [4].

Conclusion: France has not reported the identification of HPAI H5N1 in domestic poultry since it made its final report to OIE on March 26, 2006. APHIS concludes France has an effective veterinary infrastructure that was able to carry out the appropriate control measures to keep France free of HPAI H5N1 in domestic poultry.

Documentation that HPAI (as defined in 9 CFR) was a notifiable disease in France and an ongoing awareness program was in place for veterinary officials and the public, and all notified or suspect occurrences of HPAI were subjected to field and laboratory investigations.

HPAI H5N1 is a notifiable disease in France. Council Directive 2005/94/EC requires that all EU-MS notify the EC within 24 hours of the confirmation of any primary

outbreak or detection of AI of all suspected or confirmed incidents. All forms of AI confirmed by the competent authority in slaughterhouses, means of transport, border inspection posts and other places at Community borders and quarantine facilities or centers operating in accordance with Community legislation on imports of poultry or other captive birds are considered to be notifiable under Council Directive 92/40/EC. Commission Decision 2004/402/EC requires that all EU-MS have AI contingency plans, approved by the EC, in place to ensure that the most appropriate measures are immediately implemented.

Conclusion: In France HPAI H5N1 was and continues to be a notifiable disease and all notified or suspect occurrences of HPAI H5N1 are subject to immediate field and laboratory investigation. Awareness and educational outreach programs were in place and efforts were increased following the identification of the presence of HPAI H5N1 in wild birds.

A surveillance program for HPAI already existed that addressed France's needs. This program supported the detection and investigation of outbreaks, including clinical inspection, active and passive surveillance (both serological and agent detection), and serological and virological testing in high-risk areas and of high-risk flocks. These actions were sufficient to detect disease effectively and quickly, even in the absence of clinical signs.

Since 2002, all EU-MS have implemented mandatory surveys for avian influenza in domestic poultry and wild birds by submitting yearly surveillance programs to the Commission. These programs were established under Commission Decisions 2002/649/EC, 2004/111/EC, 2005/464/EC and 2006/101/EC.[10]

Commission Decision 2002/673/EC provides for the EC to provide financial contribution to cover 50% of the costs of the testing. These programs continue to be supported by Community funding and are updated annually. EC guidelines for sampling were provided to the MS for poultry, turkey, duck and goose holdings as well as guidance for wild bird sampling. Wild bird sampling plans were to include different species of free living birds with a primary emphasis on waterfowl and shorebirds and sampling of wild birds trapped, hunted and found freshly dead. Testing of samples was carried out at or under the control of the MS's national reference laboratory. Test antigens were supplied by the Community Reference Laboratory (CRL) to ensure uniformity of testing and all results were reported to the CRL for collation.

In the face of the recognized risk of the introduction of HPAI H5N1 from wild birds, Commission Decision 2005/734/EC requires MS to heighten surveillance and identify poultry holdings located in areas where the risk for disease introduction from wild birds to poultry is considered to be higher. Specific risk factors for virus introduction into poultry were identified including: location of the holding along migratory flight paths of birds from areas where HPAI had been identified; proximity to wet areas, ponds, swamps, lakes or rivers where migratory water fowl may gather; location of the poultry holdings in areas with a high density of migratory birds, particularly waterfowl; open air

holdings of poultry or other captive birds or in any other premises in which contact between wild birds and poultry or other captive birds cannot be sufficiently prevented.

By the middle of January 2006, HPAI H5N1 infected wild birds had moved from Asia into the European continent. The potential spread of the epidemic into France was foreseen due to prior findings in neighboring regions. In February 2006 HPAI H5N1 was detected in wild birds in Austria, Bulgaria, France, Germany, Greece, Italy, Hungary, Slovakia, Slovenia, and Switzerland.

In 2005, active HPAI H5N1 surveillance in wild birds was concentrated in the marshy areas based on the migratory patterns of wild birds. Samples were taken in the regions of Camargue (costal southern France) and the Loire Atlantique (northern France). Between August 29, 2005 and January 31, 2006 a total of 1004 wild birds were sampled. In 2006, between February 1, 2006 and March 23, 2006, an additional 149 wild bird surveillance samples were taken in an expanded area which included the regions of Morbihan and Rhine. All samples in the active surveillance programs for 2005 and 2006 were negative for HPAI H5N1.

Passive surveillance of wild birds was done throughout most of the country in 2005 (see figure 1). Between October and December 2005, 78 birds were sampled and all samples were negative for HPAI. From January 1 to April 12, 2006, 2549 wild birds were sampled through out France (see Figure 2). A total of 62 were positive for H5N, 61 in the department of Ain, and 1 in the department of Bouches-du-Rhône.

Active HPAI surveillance in domestic poultry was done by the departmental veterinary services and organized by DGAL in a system scientifically supported and designed by *Agence Francaise de Securite Sanitaire des Aliments* (AFFSA). In 2005, the active surveillance program was based on serology and targeted flocks at highest risk such as outdoor broiler, poultry for low capacity slaughterhouses, outdoor turkeys, quails, ducks for meat production. In 2006, the active surveillance program was expanded to include sero-sureillance of outdoor laying hens, partidges, game ducks (*Anas platyrhynchos*) and guinea fowl [3].

Figure 1. Location of passive surveillance samples for 2005 (October to December)

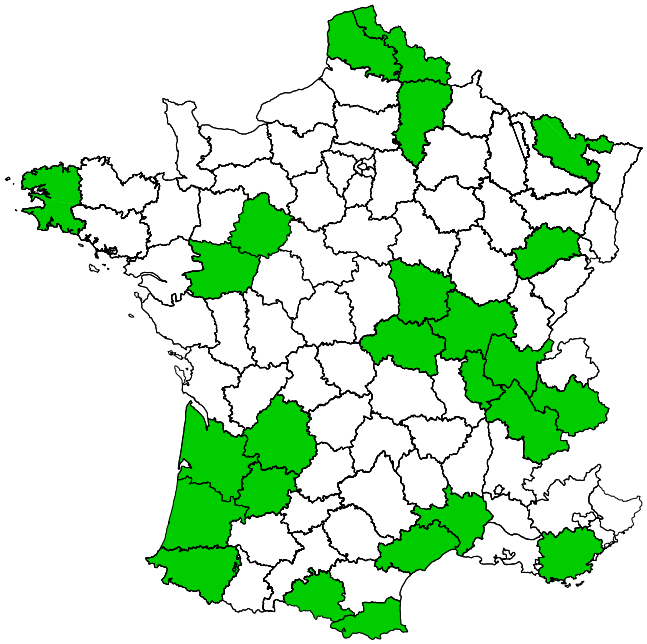
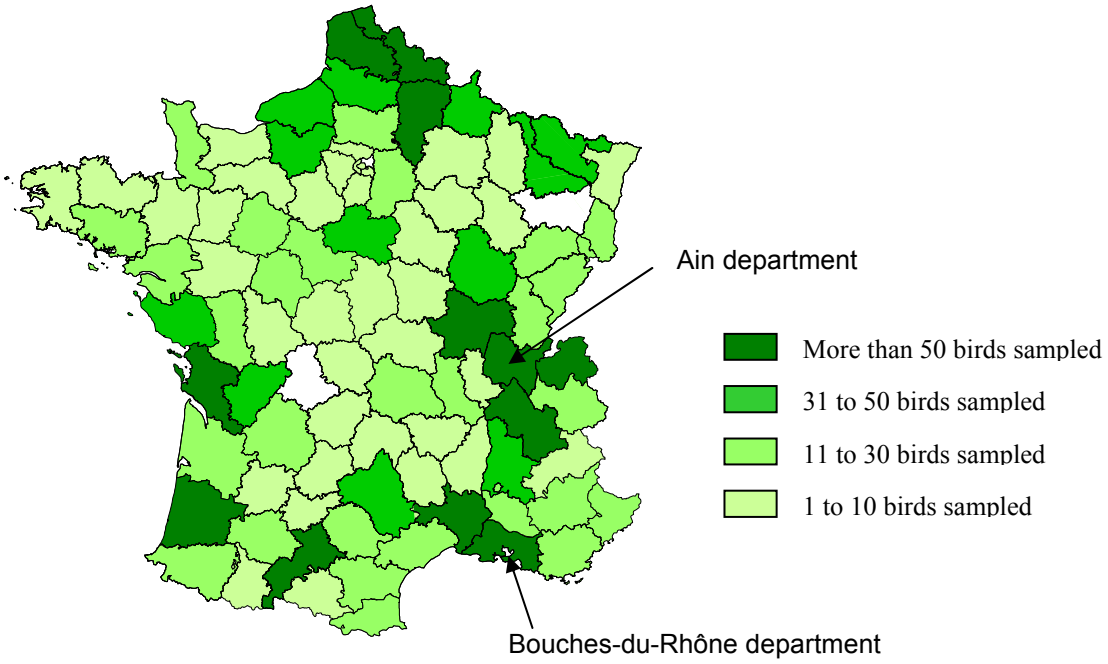


Figure 2. Location of passive surveillance samples for 2006 (January to April 12, 2006)



Conclusion: APHIS concludes that the existing surveillance program for HPAI H5N1 was appropriate for the detection the presence of HPAI effectively and quickly in wild birds and domestic poultry, even in the absence of clinical signs. The surveillance was adequate to indicate that no additional outbreaks of HPAI H5N1 had occurred in domestic poultry.

Under the surveillance program, all notified and/or suspected avian influenza cases were investigated, and officials took appropriate actions including collecting samples, transporting these samples in a manner that ensured their integrity for testing purposes, and documenting subsequent laboratory results.

Council Directive 2005/94/EC requires that, following the establishment of a protection zone around the identification of HPAI subtypes H5 or H7 in domestic poultry, a census of all the holdings in zone made as soon as possible. Visits by the official veterinarian to all commercial holdings are to occur as soon as possible for a clinical examination of the poultry and other captive birds with collection of samples for laboratory tests as indicated. Non-commercial holdings in the protection zone are also visited by an official veterinarian before the lifting of the protection zone. Additional surveillance is immediately implemented to identify any further spread of avian influenza in the holdings located in the protection zone.

Commission Decisions 2006/115/EC and 2006/135/EC established EC level measures to implement following the finding of HPAI H5NI in wild birds. This replaced the interim protection measures applied after HPAI H5NI first entered the EU. The application of appropriate protection measures based on the epidemiological situation, to prevent that disease from spreading from wild birds into commercial and noncommercial poultry flocks, including protection (3 km) and surveillance zones (10 km) are established around the place where the disease was detected in wild birds. These zones are based on geographical, administrative, ecological and epidemiological factors and may include the territory of other Member States.

Immediately following the outbreak on the turkey farm in Versalilleux restriction areas were set up; a 3 km protection zone (referred to as “zone A”) and a 10 km surveillance zone (“zone B”). Within the zones all veterinarians, farmers and municipal mayors were informed of the restrictions. Measures applied to all poultry holding in both the protection (zone A) and surveillance (zone B) zones included movement restrictions, census of all poultry holdings, compulsory confinement of all poultry including backyard flocks to prevent direct contact with wild birds, use of sanitizing footbaths at the entry of all livestock buildings, application of heightened biosecurity measures, prohibition of all gathering of birds (fairs, shows etc.) and the prohibition of transport and spreading of raw manure. In zones A and B hunting was prohibited and restrictions were placed on human activity, such as recreational walking and fishing. Surveillance sampling for HPAI H5NI in wild birds was increased in both zones A and B. Additional measures were applied to the protection zone (zone A) including veterinary visits to all poultry holdings to clinically examine the birds for signs of disease and to inform the owners of the clinical

signs and risk factors for introduction of the disease as well as implementing appropriate biosecurity measures.

In addition to the 3 and 10 km zones required by Commission Decision 2006/115/EC, France put in place an Enlarged Surveillance Zone (ESZ) based on geographical, administrative and epidemiological factors. The ESZ encompassed the entire wetlands area of the Dombes and included communes in 4 departments (see Appendix I).

From the time of the outbreak in February until to June 18, 2006, when France declared itself HPAI free to OIE, more than 300 veterinary visits were conducted for all poultry farms located in the protection zone around the outbreak on the turkey farm with no evidence of HPAI infection on any premises. In June 2006, 20 flocks in the zone were retested with negative results, including 3 flocks of laying hens, 14 flocks of broilers, and 3 flocks of guinea fowl. Testing included both serology (10 birds per flock by AGID) and virology (15 birds per flocks by rRT-PCR)[2]. No additional HPAI H5NI infected domestic poultry have been identified and the zones surrounding this outbreak were lifted in June 2006. Continued surveillance through 2007 has found no reoccurrence of the disease in domestic poultry in France.

Conclusion: APHIS concludes that the surveillance program was comprehensive enough to detect the presence of HPAI in domestic poultry. The system in place requires that all notified and/or suspected avian influenza cases be investigated with the necessary resources and diagnostic support to verify the eradication of HPAI H5NI in domestic poultry in France. The effectiveness of the eradication program was mainly due to the prompt actions taken by DGAL and of commercial flock owners.

The system for recording, managing, and analyzing diagnostic and surveillance data was sufficient to demonstrate the effectiveness of France's disease control measures.

France and the EU have several mechanisms to record and manage surveillance data, including Animal Disease Notification System (ADNS) and Trade Control and Expert System (TRACES). ADNS was established by Council Directive 82/894/EC and updated by Commission Decision 2005/176/EC. ADNS records and reports outbreaks of notifiable animal diseases in the EU Member States and other participating countries including Turkey, Iceland, the Faroe Islands, Andorra, and Switzerland. ADNS provides a reporting system for documenting individual outbreaks of notifiable animal diseases which automatically forwards information on primary outbreaks to the EC within 24 hours of identification and on a weekly basis for secondary outbreaks. The information is posted on the internet with maps updated weekly showing the location of the outbreaks and summary data.

In 2006, a total of 3,787 notifications were made in 2006, 1005 in 2005 and 1850 notifications made in 2004 covering all reportable animal diseases. In 2006, ADNS reported a total of 481 outbreaks of HPAI H5NI in wild birds in participating countries. The first case was reported on February 6, 2006, and the last on May 21, 2006. ADNS reported a total of 219 outbreaks of HPAI H5NI in wild birds in February, 133 in March,

117 in April, 17 in May and only 2 for the rest of 2006. Of the 219 reporting's in wild birds, 21 reports (62 individual positive birds) were in France. For domestic poultry, ADNS had 407 reports of HPAI H5NI in 2006 birds in participating countries with one in France. The vast majority of reports of HPAI H5NI in domestic poultry were in Turkey (202), Romania (172) and Hungary (29).

TRACES is a centralized database for the control and traceability of animals and animal products moving within the EU-MS. The system provides electronic certification, data retrieval and central statistical information for imports of animals and animal products and allows for the issuance of central risk assessments and warnings. TRACES provides a platform for updated information on disease alerts to be instantly available.

Council Directive 2005/94/EC requires maintaining records of all visits by the official veterinarians in protection zones. Official veterinary visits were done to all the poultry farms located in the protection zones set up around the Versailleux outbreak, with clinical examination of the animals. No clinical indication of HPAI H5N1 was found on any of the 304 visits were done.

Conclusion: APHIS concludes that the system in place in both France and the EU for recording, managing, and analyzing diagnostic and surveillance data was sufficient to demonstrate the effectiveness of France's HPAI H5NI disease control measures.

Laboratory confirmation capabilities were effective, and testing procedures were documented and standardized.

Council Directive 92/40/EEC put in place comprehensive requirements in the EU-MS for the laboratory confirmation procedures for HPAI H5NI and updated in Council Directive 2005/94/EC. AFSSA serves as the national reference laboratory for all serologic and virologic diagnostic techniques for HPAI H5NI. ASFFA also coordinates the diagnostic activity of 12 local veterinary laboratories including oversight of analysis standardization and methods verification, quality assurance checks and confirmation tests and training of laboratory personnel. The majority of the local laboratories are equipped to perform rRT-PCR and the local veterinary laboratory in Ain has the capability to perform both serologic and virologic tests for HPAI.

The initial finding of HPAI H5NI in wild birds was done by the departmental laboratory in Ain using RT-PCR and confirmed by RNA sequencing on a pooled tracheal swab by AFSSA. The isolate was then sent to the OIE and European Union Reference Laboratory in Weybridge, United Kingdom, for laboratory confirmation.

Conclusion: APHIS concludes that France has the laboratory capabilities to diagnose avian influenza as part of an effective national laboratory system with appropriately standardized testing and documentation procedure.

Emergency control, biosecurity procedures and eradication program: The eradication program included the definition of appropriate quarantine and surveillance zones, monitoring of those zones, and implementation of movement restrictions. Measures

taken by officials were able to contain and control the spread of disease from these zones due to effective program measures. Procedures for lifting quarantines were followed and were sufficient to prevent further spread of disease.

Commission Decision 2004/402/EC requires all EU-MS to maintain an approved contingency plan for the control of avian influenza and Newcastle disease. Under Council Directive 2005/94/EC each Member State is required to develop and maintain a Contingency Plan which is periodically reviewed and updated at least every five years. The Contingency Plan must specify the national measures to be implemented in the event of an outbreak, including the establishment of a crisis centre at the national level to coordinate all control measures in the Member State.

Additional components of the Contingency Plan include: establishment of local disease control centers with adequate staff, facilities and resource to coordinate local disease control measures; availability of resources, equipment and materials to effectively carry out the disease control measures; training programs for field and administrative personnel; and adequate diagnostic laboratory testing capacity and sample handling to ensure rapid diagnosis; maintenance of registration of commercial poultry holdings with identification of areas with a high density of poultry. The Contingency Plan must also provide for diagnostic laboratory support and cooperation with the OIE and Food and Agriculture Organization of the United Nations (FAO) reference laboratories for avian influenza. The Commission reviews and approves all Contingency Plans to determine that they are adequate and has the authority to suggest any necessary amendments required to ensure that they are compatible with those of the other EU-MS.

The Contingency Plan includes the establishment of a national crisis center to coordinate all control measures in all of France and lists local disease control centers to facilitate coordination of disease control measures on the local level. Detailed information is provided to all staff involved in control measures. Training programs are established to develop and maintain necessary skills for both field and administrative personnel. Each local disease control center establishes a network of personnel and organizations that will be directly or indirectly involved in outbreak controls. Diagnostic laboratory capacity must be assured as well as facilities for post-mortem examination.

French authorities have regularly performed simulation exercises to test the contingency plans. In 2006, 50 such exercises dedicated to HPAI were done and the same numbers were scheduled for 2007. The French Rural Code provides the authority for emergency measures to be undertaken when HPAI is suspected and confirmed and extends the application of these measures to holdings with epidemiologic links to the infected flock.

Commission Decisions 2006/148/EC and 2006/438/EC introduced the option for preventive vaccination in France against HPAI H5N1 in ducks and geese as a pilot project. The area of possible vaccine use was limited to the departments of Landes, Loire-Atlantique and Vendeé. No vaccination was used in control of the Vellieux outbreak.

Following the initial detection of HPAI H5N1 in a wild duck on February 17, 2006, a 10-km radius surveillance zone was established and increased surveillance of poultry and wild birds was put in place along with strengthened on-farm biosecurity measures on all

farms in the zone. However, no additional HPAI H5N1 was detected. As an additional precautionary measure, France stated in the initial report to OIE that these measures would be maintained for a minimum period of 30 days, instead of the 21 days required after the completion of preliminary cleaning and disinfection of the infected flock under Council Directive 2005/94/EC. All poultry flocks within the zone including back-yard flocks must be visited before lifting protection zone restrictions. In this outbreak on the turkey farm, all poultry flocks within the protection zone were visited.

Conclusion: APHIS concludes that the emergency controls, biosecurity and eradication procedures were adequate to contain and control the spread of disease. France put in place appropriate quarantine and surveillance zones with monitoring adequate to detect the presence of HPAI if it were present. Based on the geologic terrain with much surface water supporting a large population of wild birds an expanded surveillance area was created with additional HPAI surveillance in wild birds. The measures taken by French officials before lifting quarantines were sufficient to prevent further spread of disease.

Documented standard operating procedures described procedures for depopulation, cleaning, disinfecting, and other applicable measures, such as carcass disposal. All relevant personnel were familiar with these standard procedures and followed them during the outbreak. These measures were effective in controlling the disease. Premises repopulation, if applicable, was carried out according to documented procedures, including evidence that the disease did not recur and monitoring after repopulation to demonstrate that the disease was eradicated.

Measures for depopulation, cleaning and disinfection, and repopulation of the HPAI H5N1 infected holdings is carried out under official supervision in compliance with Council Directives 92/40/EC and 2006/563/EC. The veterinary authorities approve the preliminary and final cleaning and disinfection of the affected premises. Repopulation can not take place for a period of at least 21 days following the date of completion of the final cleansing and disinfection. Poultry on the repopulated premises undergo at least one clinical examination by an official veterinarian with routine laboratory testing and mandatory testing of all poultry that die during the repopulation phase. The owner is required to keep a record of production data, including morbidity and mortality data, and to immediately report any significant change or abnormalities to the competent authority. The newly repopulated facility is monitored for compliance with appropriate biosecurity measures and no commercial poultry can leave the holding without the authorization of the competent authority.

After the affected turkey flock culling of all the remaining poultry in the affected farm was carried out on the afternoon of February 23, 2006, and final cleaning and disinfection operations of the establishment were completed on March 18, 2006. In this incident, the owner decided not to continue in poultry production and has not repopulated his premises. However, extensive monitoring of nearby flocks found no evidence of infection including the June 2006 monitoring of 20 local flocks for serologic and virologic evidence of infection and none was found.

Conclusion: Standard operating procedures for depopulation, cleaning, disinfecting, carcass disposal and repopulation were in place and would have been conducted under official supervision during the outbreak. APHIS concludes that these measures were effective in controlling the disease.

RISK FACTORS APPLICABLE TO FRANCE, OCCURRENCE OF OUTBREAKS

The occurrence of the HPAI outbreak in the restricted zone in France posed a risk to the United States from export of live birds, poultry, parts or products of poultry carcasses, and eggs (other than hatching eggs) of poultry, game birds or other birds exported to the United States. While eradication of disease should mitigate immediate risk from the outbreaks that occurred, reintroduction of disease into domestic poultry remains a concern when HPAI H5N1 is present in wild or migratory bird populations. However, the response to the 2006 HPAI H5N1 outbreaks demonstrates that French authorities have adequate control measures in place to rapidly identify, control and eradicate the disease should it be reintroduced into France in either wild birds or domestic poultry.

APHIS cites the following factors as relevant to the situation in France:

- The presence of HPAI H5N1 in wild birds represents a high risk for the reoccurrence of the disease in domestic poultry. MAP recognized wild birds as the major pathway of introduction of HPAI and had in place an adequate and appropriate surveillance system for the detection of the presence of HPAI in wild birds should it reoccur.
- MAP was able to effectively control and eradicate the single HPAI H5N1outbreak in domestic poultry as a result of an effective eradication program and prompt actions taken by DGAL with the cooperation of backyard and commercial flock owners.
- From the time the presence of HPAI H5N1 was first confirmed in wild birds in February 2006, France has conducted an extensive surveillance program in wild birds and domestic poultry. However, no other flocks of poultry were found to be infected with HPAI H5N1 and no restriction zones have been put in place for the presence of HPAI H5N1 since the last zone was lifted June 2006.

With the successful eradication of HPAI H5N1 following the 2006 HPAI outbreak in France and the subsequent measures implemented in response to those outbreaks, APHIS could identify no additional risk factors currently applicable to France that would indicate that domestic poultry in France remain affected with Highly Pathogenic Avian Influenza subtype H5N1.

RISK ESTIMATION AND CONCLUSION

APHIS could identify no additional risk factors currently applicable to France that would justify continuing to consider France to be affected with Highly Pathogenic Avian Influenza subtype H5N1. France was able to rapidly identify, control and successfully eradicate HPAI H5N1 following the 2006 outbreak on a single turkey farm in the department of Ain. France has in place adequate surveillance measures to indicate that the disease has not reoccurred in their domestic bird population. In addition, APHIS

considers that if there is a reintroduction, France would be able to rapidly identify, control and eradicate the disease.

APHIS concludes that there exists a risk of reintroduction of HPAI H5N1 into France's poultry population when HPAI H5N1 is present in the wild or migratory bird populations. However, in consideration of the quick and decisive action undertaken by French authorities following the identification of HPAI H5N1 in France and its neighboring countries, the measures implemented in France, and the high level of awareness and cooperation of French poultry keepers, APHIS concludes that, if reintroduced, spread of HPAI H5N1 in France would be limited.

APHIS considers the risk of introducing HPAI H5N1 into the United States resulting from the import of live birds, poultry carcasses, parts or products of poultry carcasses, and eggs (other than hatching eggs) of poultry, game birds or other birds from France to be low. The response to the 2006 HPAI H5N1 outbreaks demonstrates that French authorities have adequate control measures in place to rapidly identify, control and eradicate the disease should it be reintroduced into France in either wild birds or domestic poultry.

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APPENDIX I

List of French Communes listed in Commission Decision 2006/175/EC

Department of Ain :

L'abergement-Clemenciat
L'abergement-De-Varey
Amberieu-En-Bugey
Amberieux-En-Dombes
Ambronay
Ambutrix
Ars-Sur-Formans
Attignat
Bage-La-Ville
Bage-Le-Chatel
Balan
Baneins
Beauregard
Beligneux
Beny
Bereziat
Bettant
Bey
Beynost
Birieux
Biziat
Blyes
La Boisse
Boissey
Bolozon
Bouligneux
Bourg-En-Bresse
Bourg-Saint-Christophe
Boyeux-Saint-Jerome
Bressolles
Buellas
Cerdon
Certines
Ceyzeriat
Chalamont
Chaleins
Challes
Chaneins
Chanoz-Chatenay
La Chapelle-Du-Chatelard
Charnoz-Sur-Ain
Chateau-Gaillard
Chatenay
Chatillon-La-Palud
Chatillon-Sur-Chalaronne
Chavannes-Sur-Suran
Chaveyriat
Chazey-Sur-Ain
Chevroux
Civrieux
Cize
Cleyzieu
Condeissiat
Confrancon
Cormoranche-Sur-Saone
Corveissiat
Courmangoux
Crans
Cras-Sur-Reyssouze
Crottet
Cruzilles-Les-Mepillat
Curtafond
Dagneux
Dommartin
Dompierre-Sur-Veyle
Dompierre-Sur-Chalaronne
Douvres
Drom
Druillat
Etrez
Faramans
Fareins
Feillens
Francheleins
Frans
Garnerans
Genouilleux
Germagnat
Grand-Corent
Grieges
Guereins
Hautecourt-Romaneche

Illiat
Jassans-Riottier
Jasseron
Jayat
Journans
Joyeux
Jujurieux
Lagnieu
Laiz
Lapeyrouse
Lent
Leyment
Leyssard
Loyettes
Lurcy
Malafretaz
Manziat
Marboz
Marlieux
Marsonnas
Massieux
Meillonnas
Merignat
Messimy-Sur-Saone
Meximieux
Bohas-Meyriat-Rignat
Mezeriat
Mionnay
Miribel
Miserieux
Mogneneins
Montagnat
Montceaux
Montcet
Le Montellier
Monthieux
Montluel
Montmerle-Sur-Saone
Montracol
Montrevel-En-Bresse
Neuville-Les-Dames
Neuville-Sur-Ain
Neyron
Nievroz
Nivollet-Montgriffon
Ozan
Parcieux
Peronnas
Perouges
Perrex
Peyzieux-Sur-Saone
Pizay
Le Plantay
Polliat
Poncin
Pont-D'ain
Pont-De-Veyle
Pouillat
Pressiat
Priay
Ramasse
Rance
Relevant
Replonges
Revonnas
Reyrieux
Rignieux-Le-Franc
Romans
Saint-Alban
Saint-Andre-De-Bage
Saint-Andre-De-Corcy
Saint-Andre-D'huiriat
Saint-Andre-Le-Bouchoux
Saint-Andre-Sur-Vieux-Jonc
Saint-Bernard
Sainte-Croix
Saint-Cyr-Sur-Menthon
Saint-Denis-Les-Bourg
Saint-Denis-En-Bugey
Saint-Didier-D'aussiat
Saint-Didier-De-Formans
Saint-Didier-Sur-Chalaronne
Saint-Eloi
Saint-Etienne-Du-Bois
Saint-Etienne-Sur-Chalaronne
Sainte-Euphemie
Saint-Genis-Sur-Menthon
Saint-Georges-Sur-Renon
Saint-Germain-Sur-Renon
Saint-Jean-De-Niost
Saint-Jean-De-Thurigneux
Saint-Jean-Le-Vieux

Saint-Jean-Sur-Veyle
Sainte-Julie
Saint-Julien-Sur-Veyle
Saint-Just
Saint-Marcel
Saint-Martin-Du-Mont
Saint-Martin-Le-Chatel
Saint-Maurice-De-Beynost
Saint-Maurice-De-Gourdans
Saint-Maurice-De-Remens
Saint-Nizier-Le-Desert
Sainte-Olive
Saint-Paul-De-Varax
Saint-Rambert-En-Bugey
Saint-Remy
Saint-Sorlin-En-Bugey
Saint-Sulpice
Saint-Trivier-Sur-Moignans
Saint-Vulbas
Sandrans
Savigneux
Serrieres-Sur-Ain
Servas
Simandre-Sur-Suran
Souclin
Sulignat
Thil
Thoissey
Torcieu
Tossiat
Toussieux
Tramoyes
La Trancliere
Treffort-Cuisiat
Trevoux
Valeins
Vandeins
Varambon
Vaux-En-Bugey
Versailleux
Villars-Les-Dombes
Villemotier
Villeneuve
Villereversure
Villette-Sur-Ain
Villieu-Loyes-Mollon
Viriat
Vonnas

Department of Isere

Anthon
La Balme-Les-Grottes
Charvieu-Chavagneux
Chavanoz
Hieres-Sur-Amby
Janneyrias
Vernas
Vertrieu
Villette-D'anthon

Department of Rhone

Albigny-Sur-Saone
Alix
Amberieux
Anse
Arnas
Belleville
Belmont-D'azergues
Blace
Bron
Cailloux-Sur-Fontaines
Caluire-Et-Cuire
Cercie
Champagne-Au-Mont-D'or
Charentay
Charnay
Chasselay
Chazay-D'azergues
Les Cheres
Civrieux-D'azergues
Collonges-Au-Mont-D'or
Corcelles-En-Beaujolais
Couzon-Au-Mont-D'or
Curis-Au-Mont-D'or
Dardilly
Denice
Dommartin

Drace
Fleurieu-Sur-Saone
Fontaines-Saint-Martin
Fontaines-Sur-Saone
Gleize
Lachassagne
Lancie
Liergues
Limas
Limonest
Lissieu
Lozanne
Lucenay
Marcilly-D'azergues
Marcy
Morance
Neuville-Sur-Saone
Poleymieux-Au-Mont-D'or
Pommiers
Pouilly-Le-Monial
Quincieux
Rochetaillee-Sur-Saone
Saint-Cyr-Au-Mont-D'or
Saint-Didier-Au-Mont-D'or
Saint-Etienne-Des-Oullieres
Saint-Georges-De-Reneins
Saint-Germain-Au-Mont-D'or
Saint-Jean-D'ardieres
Saint-Jean-Des-Vignes
Saint-Julien
Saint-Lager
Saint-Romain-Au-Mont-D'or
Taponas
Theize
Vaulx-En-Velin
Villefranche-Sur-Saone
Villeurbanne
Villie-Morgon
Chassieu
Decines-Charpieu
Genas
Genay
Jonage
Jons
Meyzieu
Montanay
Pusignan
Rillieux-La-Pape
Saint-Bonnet-De-Mure
Saint-Priest
Sathonay-Camp
Sathonay-Village
Colombier-Saugnieu
Lyon 1er Arrondissement
Lyon 3e Arrondissement
Lyon 4e Arrondissement
Lyon 6e Arrondissement
Lyon 9e Arrondissement

Department of Saone Et Loire
La Chapelle-De-Guinchay
Creches-Sur-Saone
Romaneche-Thorins
Saint-Symphorien-D'ancelles

APPENDIX II

Summary of selected EU Council Directives, Council Decisions and French Rule Code for avian influenza control.

Council Directive	**Full Title**
Council Directive 2005/94/EC	Council Directive 2005/94/EC of 20 December 2005 on Community measures for the control of avian influenza and repealing Directive 92/40/EEC
Council Directive 92/40/EEC	Council Directive 92/40/EEC of 19 May 1992 introducing Community measures for the control of avian influenza, as amended for the accession of Norway, Austria, Finland and Sweden, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia
Council Directive 82/894/EEC	Council Directive of 21 December 1982 on the notification of animal diseases within the Community.
Commission Decision	**Full Title**
Commission Decision 2007/268/EC	Commission Decision of 13 April 2007 on the implementation of surveillance programs for avian influenza in poultry and wild birds to be carried out in the Member States and amending Decision 2004/450/EC
Commission Decision 2006/574/EC	Commission Decision of 18 August 2006 amending Decision 2005/734/EC as regards certain additional risk mitigating measures against the spread of avian influenza
Commission Decision of 19 July 2006 2006/506/EC	Commission Decision of 19 July 2006 amending Decision 2006/415/EC concerning certain protection measures in relation to highly pathogenic avian influenza of the subtype H5N1 in poultry in the Community
Commission Decision 2006/563/EC	Commission Decision of 11 August 2006 concerning certain protection measures in relation to highly pathogenic avian influenza of subtype H5N1 in wild birds in the Community and repealing Decision 2006/115/EC
Commission Decision 2006/438/EC	Commission Decision 2006/438/EC of 27 June 2006 amending Decision 2006/148/EC on introducing preventive vaccination against highly pathogenic avian influenza H5N1 and related provisions for movements in France. (Official Journal of the European Union, No. L 174, 28 June 2006, pp. 7-8) EC.06.137 This amendment of the Decision of 24 February 2006 (see IDHL, 2006, 57, EC 06.072) provides for the prolongation of preventive vaccination to 30 June 2006.
Commission Decision 2006/405/EC	Commission Decision of 7 June 2006 amending Decisions 2005/710/EC, 2005/734/EC, 2005/758/EC, 2005/759/EC, 2005/760/EC, 2006/247/EC and 2006/265/EC as regards certain protection measures in relation to highly pathogenic avian influenza

Commission Decision 2006/314/EC	Commission Decision 2006/314/EC of 16 March 2006 approving the Member States' survey programs for avian influenza in poultry and wild birds during 2006.
Commission Decision 2006/175/EC	Commission Decision 2006/175/EC of 2 March 2006 amending Decision 2006/135/EC as regards the establishment of areas A and B in France due to an outbreak of highly pathogenic avian influenza in that Member State. (see Appendix I)
Commission Decision 2006/148/EC	Commission Decision 2006/148/EC of 24 February 2006 on introducing preventive vaccination against highly pathogenic avian influenza H5N1 and related provisions for movements in France
Commission Decision 2006/135/EC	Commission Decision of 22 February 2006 concerning certain protection measures in relation to highly pathogenic avian influenza in poultry in the Community
Commission Decision 2006/115/EC	Commission Decision of 17 February 2006 concerning certain protection measures in relation to highly pathogenic avian influenza in wild birds in the Community and repealing Decisions 2006/86/EC, 2006/90/EC, 2006/91/EC, 2006/94/EC, 2006/104/EC and 2006/105/EC
Commission Decision 2006/101/EC	Commission Decision of 6 February 2006 on the implementation of survey programs for avian influenza in poultry and wild birds to be carried out in the Member States in 2006.
Commission Decision 2005/855/EC;	Commission Decision of 30 November 2005 amending Decision 2005/734/EC laying down biosecurity measures to reduce the risk of transmission of highly pathogenic avian influenza caused by Influenza virus A subtype H5N1 from birds living in the wild to poultry and other captive birds and providing for an early detection system in areas at particular risk.
Commission Decision 2005/745/EC	Commission Decision of 21 October 2005 amending Decision 2005/734/EC laying down biosecurity measures to reduce the risk of transmission of highly pathogenic avian influenza caused by influenza A virus of subtype H5N1 from birds living in the wild to poultry and other captive birds and providing for an early detection system in areas at particular risk
Commission Decision 2005/732/EC	Commission Decision 2005/732/EC of 17 October 2005 approving the programs for the implementation of Member States' surveys for avian influenza in poultry and wild birds during 2005 and laying down reporting and eligibility rules for the Community financial contribution to the implementation costs of those programs.
Commission Decision 2005/731/EC	Commission Decision 2005/731/EC of 17 October 2005 laying down additional requirements for the surveillance of avian influenza in wild birds

Commission Decision 2005/464/EC	Commission Decision 2005/464/EC of 21 June 2005 on the implementation of survey programs for avian influenza in poultry and wild birds to be carried out in the Member States
Commission Decision of 2004/630/EC	Commission Decision of 2004/630/EC of 27 July 2004 approving the programs for the implementation of Member States' surveys for avian influenza in poultry and wild birds during 2004 and laying down reporting and eligibility rules for the financial contribution from the Community to the implementation costs of those programs. [amended by 2004/679/EC on 5 October 2004]
Commissions Decision 2004/450/EC	Commissions Decision of 29 April 2004 laying down standard requirements for the content of applications for Community financing for programs for the eradication, monitoring and control of animal disease
Commission Decision 2004/402/EC	Commission Decision of 26 April 2004 approving contingency plans for the control of avian influenza and Newcastle disease.
Commission Decision 2004/111/EC	Commission Decision 2004/111/EC of 29 January 2004 on the implementation of surveys for avian influenza in poultry and wild birds in Member States, to be carried out during 2004.
Commission Decision 2002/673/EC	Decision 2002/673/EC of 22 August 2002 approving the programs for the implementation of Member States' surveys for avian influenza in poultry and wild birds.
Commission Decision 2002/649/EC	Commission Decision 2002/649/EC of 5 August 2002 on the implementation of surveys for avian influenza in poultry and wild birds in the Member States.
French Rural Code**	**Brief Description**
Article D223-1	Requires an emergency plans for listed contagious diseases including Newcastle disease and avian influenza.
Article D223-22-2	Requires establishing an alert network organized at the national and departmental levels. Network to include: breeders and owners, health veterinarians; departmental directors of veterinary services and approved laboratories.
Article D223-22-3	Requires emergency plans to be prepared after consulting the committees responsible for animal health at the national level and at departmental level.
Article D223-22-4	Following confirmation of a contagious disease outbreak the emergency plan is immediately implemented and is organized at the national level. The Ministry of Agriculture is responsible for organization and instruction for the departmental and national crisis management.
Article D223-22-5	Defines general measures for prevention and control of diseases, including defining cleaning and disinfection procedures to be used by the Minister for Agriculture.
Article D223-22-6	Requires that animals are slaughtered for health reasons outside a slaughterhouse, all appropriate steps shall be taken to

	minimize their suffering and the risk of spread of the pathogen under the guidance of the Ministry of Agriculture.
Rural code measures in case of suspicion of a listed animal disease	
Article D223-22-7	Requires establishing an alert network organized at the national and departmental levels. Network to include: breeders and owners, health veterinarians; departmental directors of veterinary services and approved laboratories.
Article D223-22-8	Requires emergency plans to be prepared after consulting the committees responsible for animal health at the national level and at departmental level.
Article D223-22-9	Following confirmation of a contagious disease outbreak the emergency plan is immediately implemented and is organized at the national level. The Ministry of Agriculture is responsible for organization and instruction for the departmental and national crisis management.
Rural code measures in the event of confirmation of the presence of a listed disease.	
Article D223-22-11	A decree statement of infection is made following the confirmation of the presence of a listed disease by the approved diagnostic laboratory; the prefect applies the emergency control measures to fight the disease under the authority of the departmental director of Veterinary Services. This decree may outline measures for the indicated farm and establish an area subject to restrictive measures around the farm.
Article D223-22-12	Following confirmation of the presence of the listed disease, all or part of the measures provided for articles L.223-3 and L.223-8 of the Rural Code may be applied. Trace back and destruction of all animals and animal products that left the farm before the onset of symptoms, during the time period when they were likely to be exposed/contaminated are traced and slaughtered. Repopulation of the farm can only be done after the completion of the disinfection operation and under conditions established by decree of the Minister for Agriculture.
Article D223-22-13	Allow application of all or part of the measures established in Articles L.223-3 and L.223-8 to restriction zones.
Article D223-22-14	Establishes the authority of the Minister for Agriculture to develop the technical details of implementing the measures provided for in Articles D.223-22-11 to D.223 -22-13 and determine the duration of their implementation.
Article D223-22-15	Establishes the authority to implement or maintain of the measures mentioned in articles D.223-22-7 and D.223-22-9 on surrounding farms or farms with an epidemiological connection with the infected holding.
Article D223-22-16	Establishes the authority to place a farm under surveillance because of an epidemiological link to the affected farm and

	apply restricts based on the presence of an animal showing clinical signs or necropsy indicated the presence of the disease, without waiting for the establishment of laboratory diagnosis.
Article D223-22-17	Emergency vaccination may be permitted if the Minister for Agriculture appeals to the European Commission.